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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,772	03/31/2004	Annmarie Superka	DN 03-013	5241
32975	7590	01/11/2007		
MARVIN J. POWELL MINERAL TECHNOLOGIES INC. 1 HIGHLAND AVENUE BETHLEHEM, PA 18017			EXAMINER FIORITO, JAMES	
			ART UNIT	PAPER NUMBER
			1754	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/11/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/813,772	<b>Applicant(s)</b> SUPERKA ET AL.	
	<b>Examiner</b> James A. Fiorito	<b>Art Unit</b> 1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 14-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-18 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/04, 4/04 and 6/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-13, and 17-18, are drawn to a method of making precipitated calcium carbonate, classified in class 423, subclass 419.1.
- II. Claims 14-16, drawn to a product made, classified in class 428, subclass 32.34.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the precipitated calcium carbonate made from the process claims of group I may be made without a binder as required by the product claim 14, and without paper as required by the product claim 16.

During a telephone conversation with George Fairchild on 1/3/07 a provisional election was made without traverse to prosecute the invention of group I, claims 1-13, and 17-18. Affirmation of this election must be made by applicant in replying to this Office action. Claims 14-16 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one

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or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It appears that claim 7 is drawn to three different groups:

Group 1: Sodium salts of co-polymers of acrylic acid and diallyldimethylammonium chloride (DMAAC)

Group 2: Sodium salts of co-polymers of acrylic acid and methyl chloride quaternaryamine of dimethylaminoethylacrylate (DMAEA:quaternaryamine)

Group 3: Acrylic acid (AA) –DMAAC: quaternaryamine

However, claim 7 is indefinite as to how many groups are claimed in claim 7 and which chemicals belong to each group.

Further, claim 7 is indefinite as to the meets and bounds of each group. Which chemicals are included and excluded from each of the groups?

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-6, 10-13, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donigian '038 in view of Hei 09-194669.**

Donigian teaches a method for producing a precipitated calcium carbonate for ink jet recording paper comprising: a) admixing calcium oxide with water to produce a calcium hydroxide slurry; b) admixing a first amount of bis(methylenephosphonic acid) followed by adding aluminum sulfate to the calcium hydroxide slurry; c) introducing carbon dioxide to the calcium hydroxide slurry to produce a precipitated calcium carbonate slurry; d) adding a second amount of bis(methylenephosphonic acid) to the precipitated calcium carbonate slurry; e) admixing phosphoric acid to the precipitated calcium carbonate slurry; f) screening and dewatering the calcium carbonate slurry (Column 8 Examples 1-2). Donigian also adds a binder to the precipitated calcium carbonate so that it may be used as a pigment (Claim 1).

Donigian does not expressly state the step of milling the precipitated calcium carbonate in the presence of an amphoteric or anionic dispersant to produce a precipitated calcium carbonate product.

Hei teaches a process of lowering the viscosity of calcium carbonate slurries by adding sodium polyacrylates and copolymers of acrylic maleic acids to the slurries (Paragraphs 1 and 2). Donigian and Hei are analogous art because they are from the

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same field of endeavor, namely process of making calcium carbonate for paper making processes.

At the time of invention it would have been obvious to a person of ordinary skill in the art to form the process of Donigian to include the step of milling the precipitated calcium carbonate in the presence of an amphoteric or anionic dispersant to produce a precipitated calcium carbonate product in view of the teaching of Hei. The suggestion or motivation for doing so would have been to lower the viscosity of the calcium carbonate slurry (Paragraph 1).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fiorito whose telephone number is (571)272-7426. The examiner can normally be reached on 9am - 6pm.

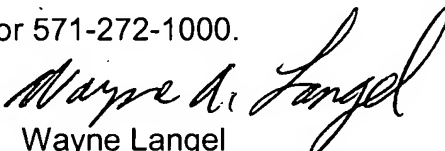
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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